

Why we must discontinue some products



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The Goal - Lasting Value

"The Company takes excellent care of its global customers by providing the right solutions to their business problems based on engineering principles. Through this process, we provide safe, reliable, high quality **products of lasting value** and unequalled service." (From Bently Nevada's Statement of Core Values, emphasis added.)

Bently Nevada's track record in adhering to the above has been, we think you will agree, excellent, and the company continues to drive towards total customer satisfaction. Unfortunately, because we have been so good at supporting our products for long periods of time, some customers, *and even some of our own people*, have come to interpret "products of lasting value" as "products which last forever." Regrettably, that is not so. Just because Bently Nevada products which were installed over 20 years ago continue to "work" does not mean they are doing exactly the same job that would be

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expected of a current design machinery protection and management system. The purpose of this article is to help you to understand some of the many issues surrounding product obsolescence, and to help you to plan the migration from older systems you may have installed to more valuable, state-of-the-art systems.

The evolution of technology

When we design new products, we use the most modern electronic technology and manufacturing processes to increase reliability, performance, and value. Consider the 7200 Series Monitoring System, for example, which was designed in 1974/1975 using components available at that time. Thanks to you, our customers, the 7200 Series was a huge success. When we advised you in 1991 that we would stop manufacturing new systems in 1993, the 7200 Series had been produced for 19 years. We have committed to continue to support the product with available spares and service until 2003. However, is it a good idea for Bently Nevada to continue to encourage the use of a "fleet" of installed systems

that represents 25-year-old technology and methodology, and whose average age is over 15 years? We have struggled with this question for some time. In the past, our tendency has been to err on the side of product support rather than product obsolescence. We now think that, in many cases, this is wrong; it may not be in the best interests of most of our customers.

The evolution of knowledge

New products are the embodiment of corporate learning. What we learn about design, component reliability, proper and effective applications, failure modes, diagnostic methodologies, etc., from one generation of products becomes the starting point for the next. Much of our core competence is in the design and manufacture of systems that are "fault tolerant," so they don't produce false alarms. They are also self-checking; that is, they provide assurance that no machine-related alarms are missed because of an undetected fault in the monitor. We sum this up in the following goal: "No false trips, no missed trips!" Current products come much closer to this goal than previous generations of products.

What were considered "best practices" in 1975 are certainly not considered best practices today. Existing installations should be looked at from this perspective: "If I were buying a machinery protection and management system today, would I be happy with the level of performance and capability

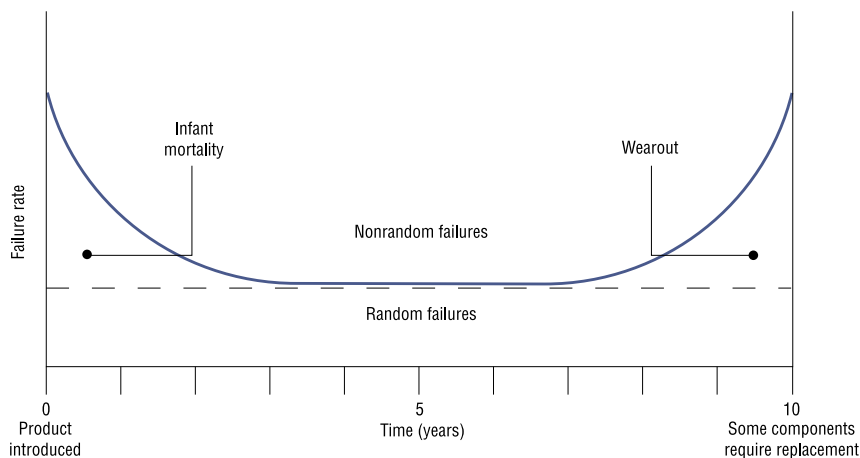


Figure 1. Typical reliability bathtub curve used to determine obsolescence policy for a product.

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of my current system? Does the overall system architecture represent current best practices?” What was good enough in electronic products 25 years ago is simply not good enough today.

The evolution of component failure understanding

In the early days of solid-state electronics, it was often thought that components, if they survived “infant mortality,” would last indefinitely. We now know better. Many components, such as electrolytic capacitors, switches, and other mechanical parts, have finite life spans. The “bathtub curve” (Figure 1) is used to graphically display the likelihood of failure of an electronic component over time. While we cannot accurately define at what point in time the reliability of a component might begin

to deteriorate, we do know that it happens. The possibility cannot be excluded that a failed component part could compromise the integrity of your machinery protection system.

The evolution of component availability

This concept is sometimes referred to as parts “de-proliferation.” Whatever word is used, it means that parts which were once produced are no longer produced. This is nothing new, but the pace of “rationalization,” particularly for older design parts, has definitely picked up. In most cases, we deal with this issue without you ever being aware of it. In the past year alone, we have spent well in excess of \$1,000,000 redesigning our products, mostly older products, because vendor parts have been made obsolete. Sometimes, however, redesign is impractical or even impossible, and at that time we are forced to obsolete parts, or at least options. We want you to be aware that the older the product, the more likely it is that component parts will be made obsolete. There is an increasing probability that a time will come, possibly with no warning, that we will be unable

to continue to produce, repair, or otherwise support that product.

New Product Development is the lifeblood of any company, and Bently Nevada is certainly no exception. It is a competitive world, and we work very hard to continue to develop new products which offer you increasingly greater value. As newer product sales begin to displace sales of older products, the production cost (per unit) of the displaced product rises for a variety of reasons. Cost of spare parts, cost of repairs, and the timely availability of spares are all impacted negatively when this happens. This happened in the 1980’s when sales of 3300 Monitoring Systems displaced sales of 7200 Series Monitoring Systems. It is happening now with sales of 3500 Protection Monitors displacing sales of 3300 Monitors.

The evolution of customer needs

“Machinery Management” was not a phrase that existed in our vocabulary in the 1970’s, but it is rapidly becoming a necessity to actively “manage” machines, not just to passively “monitor” them. Machine “saves” are the purpose for installing a machinery protection system. “Save” usually means a machine has been tripped off-line to prevent serious damage. That is better than a machine wreck. However, the best result is when stresses, which will eventually cause high vibration and the trip, are detected early enough, and the fundamental cause is understood. Then operating parameters can be changed to alleviate the stress and keep the machine running and producing product. That is the objective of machinery management, and the payback is huge. Effective machinery management, and the full benefits provided by today’s on-line computerized machinery management systems, are only available if you are

Update on 7200 and 9000 Series Machinery Protection System obsolescence

Bently Nevada's 7200 and 9000 Series Machinery Protection Systems were introduced to the market in 1975 and 1977, respectively. We're pleased that the quality and usefulness of our products mean that many of these systems are still providing reliable service. However, both of these products are in a formal obsolescence program - our ability to keep such systems operating reliably for you is limited, and will eventually go away. For this reason, it is important that those of you with an installed base of 7200 and/or 9000 Series Machinery Protection Systems develop a plan, if you have not already done so, for migrating to newer products. **We are encouraging you to carefully review your installed base of older Bently Nevada products, especially those in automatic shutdown applications, identify those that require upgrading, and migrate to our newer products.**

Our obsolescence program for these two products has been communicated extensively, via the ORBIT magazine and direct mailings. Briefly, we have used a phased approach to ensure that you could purchase complete new systems for a reasonable period of time. This first phase (availability of entire new systems) is followed by a period of availability of "spare parts only," and, finally, a phase during which we can only provide repair and refurbishment services but not entire spare monitor modules. Generally, each phase lasts approximately 3 years, allowing for a 9-year phase-out of significant product lines, such as the 7200 and 9000 Series. Indeed, to ensure we did not introduce unreasonable inconvenience, we have already extend-

ed our initial policy of providing new spare modules for 7200 Series through July 1999. This is a 36-month extension to our original plan, which has extended Phase 2 of 7200's obsolescence (spare parts only) to 6 full years.

For both of the 7200 and 9000 Series product lines, we are now in the phase of obsolescence where we can no longer provide spare modules. **As of 1 August 1999, we no longer provide spare modules for either 7200 or 9000 Series Systems.** We will provide repair and refurbishment of these systems through 2003, to the extent that parts are available from our suppliers. However, because the components used in these systems date back 20 years or more, our suppliers could discontinue availability of certain parts at any time, and with little or no advance notice. If you have not given thought to your installed base of 7200 or 9000 Systems, now is an excellent time to do so. Your Bently Nevada sales professional can help you structure a program for replacement of these older systems to ensure that your ability to protect and manage all your machinery continues without interruption. ☺



7200 Series



9000 Series

using our more recent transducer suites, protection systems, data acquisition devices, and integration capability. Older systems were simply not designed with today's requirements in mind.

Moving forward

For all of the aforementioned reasons, we are encouraging you to carefully review your installed base of older Bently Nevada products, especially those in automatic shutdown

applications, identify those that require upgrading, and migrate to our newer products. We have specialist engineering capability in key locations around the world to help you evaluate your currently-installed systems and to recommend the best course of action to upgrade to a modern machinery protection and management system. Consider using our specialist engineering services to manage the complete upgrade as a turnkey project.

Please continue to look for future information in our ORBIT magazine on upcoming product obsolescence announcements and the status of products in the various stages of obsolescence. ☺